

# FLIR T640 / FLIR T620



The FLIR T640 / T620 combine the ergonomics and flexibility of the FLIR T-Series with the extremely high image quality of the P-Series. The FLIR T640 / FLIR T620 offer a crisp thermal image of 640 x 480 pixels on which the smallest of details can be seen. An intuitive user interface supported by state-of-the-art touch-screen technology make the FLIR T640 /FLIR T620 extremely easy to use.



## 640x480 pixel resolution

The high definition 640x480 pixels detector generates crisp and clear detailed images that are easy to interpret, resulting in reliable inspections with higher accuracy.



## High sensitivity

The T640 allows you to see temperature differences as small as 0.04°C.



## Tiltable IR unit

The tiltable IR unit gives you great flexibility and allows you to work faster and in a comfortable position during your inspections.



## Large bright 4.3 inch LCD screen

The high quality LCD screen presents sharp and bright images also in outdoor environments.



## Viewfinder (FLIR T640)

The high-resolution viewfinder is ideal for outdoor use or when the LCD screen is not used.



## High quality visual camera

An integrated 5 megapixel visual camera generates crisp visual images in all conditions.



## Automatic- and manual focus

The FLIR T640/FLIR T620 has a manual focus on the lens as well as a quick one shot autofocus.



## Laser Pointer

The position of the laser pointer is highlighted on the IR-image, which helps you associate the hot spot in the image with the physical target.



## Flexible interfaces

Easy access to Digital Video Interface, USB for connecting external devices, USB2 for PC communication and a direct connection to charge the battery inside the camera.



## MPEG-4 video

Create visual and infrared non radiometric MPEG-4 video files.



## FLIR Thermal Fusion

Merges visual and thermal images for better analysis.



## Wireless connectivity

With WiFi technology you can communicate wirelessly with the camera for instance by sending images directly from the camera to a smart phone or a tablet PC. With Bluetooth technology you can collect Meterlink values from other external measurements and add voice comments to your images. All without connecting cables.



## Picture-in-picture

Create an infrared overlay on your visual image. Adapts automatically to different lenses with different field of view. Moveable and resizable.



## Touch screen

The LCD touch screen brings interactivity and user comfort to a new level. In combination with the large backlit buttons and joystick control the T640/ T620 is very easy to use.



## Sketch annotations

Include a sketch with the IR image of the inspected object, just draw it on the touch screen.



## Text and voice annotations

Text comments can be selected from a list. A Bluetooth headset can be connected to make voice annotations.



## Digital zoom

The FLIR T640 is equipped with a 1-8x continuous digital zoom and the T620 with a 1-4x zoom.



**MeterLink™**

FLIR MeterLink technology simplifies the work in electrical or building inspections by making it possible to transfer, via Bluetooth®, the data acquired by an Extech clampmeter or multifunction moisture meter and psychrometer into the thermal imaging camera. The MeterLink technology saves time and eliminates the risk of erroneous records or notes.



**FLIR T640 / FLIR T620 Model Comparison**

**FLIR T620**

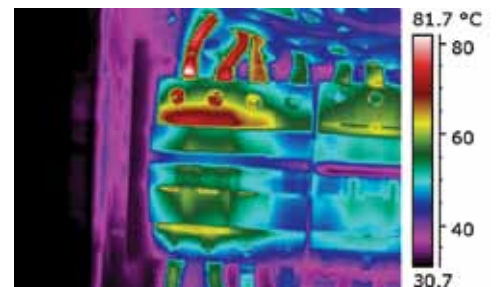


Thermal sensitivity: 50 mk  
 LCD display only  
 Measures temperatures up to +650 C  
 1-4x continuous, digital zoom, including panning

**FLIR T640**



Thermal sensitivity: 40 mk  
 Viewfinder and LCD display  
 Measures temperatures up to +2,000 C  
 1-8x continuous, digital zoom, including panning  
 Line profile function  
 Measurement presets



*Overheated connection.*

# FLIR T620 - FLIR T640

## Technical specifications

### Camera specific



	FLIR T620	FLIR T640
<b>Imaging performance</b>		
Thermal sensitivity (at 30 °C)	50 mK @ 30 °C	40 mK @ 30 °C
Digital zoom / Panning	Direct access, 1-4x continuous / Panning on freezed image	Direct access, 1-8x continuous / Panning on freezed image
<b>Image presentation</b>		
Viewfinder	N/A	800x480 pixels
<b>Measurement</b>		
Temperature range, standard	-40 °C to +150 °C	-40 °C to +150 °C
Temperature range, optional	0 °C to +650 °C up to +2,000 °C	0 °C to +2,000 °C
<b>Measurement analysis</b>		
Line profile function	N/A	Live profile, H/V-direction
Measurement presets	N/A	Add preset measurement set up by the press of one button

### General

<b>Imaging performance</b>	
Resolution	640x480 pixels
Focal Plane array (FPA)	Uncooled microbolometer 640x480 pixels, latest generaton with 17 µm pitch
Spectral range	7.8 to 14 µm
Field of view / min focus distance	25° x 19° / 0.25 m
Spatial resolution (IFOV)	0.68 mrad
Image frequency	30 Hz
Focus	Manual / autofocus
<b>Image presentation</b>	
Display	4.3" superbright touchscreen LCD 800x480 pixels
Image modes	IR-image with selected color scale, Full color visual, Picture in Picture (Resizable and movable IR-area), Thermal Fusion (Threshold above, below and interval), thumbnail gallery
Manual image adjustments	Level/span/max/min
Automatic image adjustments, continuous or manual activation	Standard or based on histogram from image content
Automatic image adjustment with locked scale	Lock max, min or span



## General

<b>Measurement</b>	
Accuracy	± 2 °C or ± 2% of reading
<b>Measurement analysis</b>	
Spotmeter	10
Area	5 Max/Min/Average value within box or circle
Automatic hot/cold detection	Max/Min temp. value and position shown within box, circle or on a line
Isotherm	Detect high/low temperature/interval
Difference temperature	Difference between any two measurement functions or any measurement function and a reference temperature
Reference temperature function	Manually set or captured from any measurement function
Emissivity correction	Variable from 0.01 to 1.0 or selected from materials list
Measurement corrections	Reflected temperature, optics transmission and atmospheric transmission
External windows correction	Automatic based on inputs of window temperature and transmission
<b>Set-up</b>	
Image controls	Palettes (Arctic, Gray, Iron, Lava, Rainbow and Rainbow HC), image adjustment (auto/manual)
Set-up controls	Local adaptation of units, language, date and time formats; automatic shutdown, display intensity
Configure information to be shown in image	✓
Programmable button	✓
<b>Image storage</b>	
Type	IR/visual images; simultaneous storage of visual and IR images
Format	Standard JPEG - including measurement data on SD memory card
Periodic image storage	Every 2 sec up to 24 hours
<b>Digital camera</b>	
Built-in digital camera	5 Mpixel incl. lamps
<b>Laser LocatIR</b>	
Laser	Semiconductor AlGaInP diode laser, Class 2 - position is displayed on the IR image
Laser alignment	Laser position shown on IR-image
<b>Image annotation</b>	
Voice	60 seconds via Bluetooth®
Text	Text from predefined list or soft keyboard on touch screen
Sketch	A sketch drawn on touch screen is automatically saved with image
Meterlink	Wireless connection to: Extech Moisture meter MO297 or Extech clamp meter EX845
<b>Report generation</b>	
Instant Report in camera	Automatic generation of PDF report based on selected images direct in camera
<b>Video streaming /recording</b>	
Non radiometric IR-video streaming	MPEG 4 streaming to PC using USB
Video recording in camera	Non-radiometric IR video/visual video, MPEG4 to SD-card.
WiFi	Wireless streaming of non-radiometric IR-video, MPEG4
<b>Update of camera</b>	
Automatic update of camera to latest version	Automatic update of camera from PC running FLIR Tools
<b>Data communication interfaces</b>	
Interfaces	USB-mini, USB-A, Bluetooth®, WiFi, DVI video
Bluetooth®	Communication with smart phone, PC tablet, headset and external sensors
USB	USB-A: Connect external USB device - USB-mini-B: Data transfer to and from PC / Streaming MPEG 4
<b>Power</b>	
Battery type	Lithium-Ion (field replaceable)
Battery operating time	> 3 hours at 25°
Charging system	In camera, AC adaptor, 2-bay charger or 12 V from a vehicle
Power management	Automatic shutdown and sleep mode (user selectable)
AC operation	AC adaptor, 90-260 V AC, 50/60 Hz
Adaptor voltage	12 Volt VDC out
<b>Environmental specifications</b>	
Operating temperature range	-15 to +50°C
Storage temperature range	-40 °C to +70 °C
Humidity, operating and storage, non-condensing	IEC 60068-2-30 /24 h, 95% relative humidity +25 °C to +40 °C
Encapsulation	IP 54, IEC 60529
Bump, Operational	25G, IEC 60068-2-29
Vibration, Operational	2G, IEC 60068-2-6
EMC, emission	EN 61000-6-3
EMC, immunity	EN 61000-6-2
<b>Physical characteristics</b>	
Camera weight incl. battery	1.3 kg
Camera size (L x W x H)	143 x 195 x 95 mm
Tripod Mounting	1/4" - 20
<b>Lenses optional</b>	
Tele lens, 15°	15° x 11° / 0.9 m
Wide angle lens 45°	45° x 34° / 0.1 m
<b>Standard package</b>	
FLIR T620 / T640: Hard transport case, thermal imaging camera with lens, Battery (2), Battery charger, Large eyecap, Tripod adaptor, Neck strap, Lens cap, Bluetooth® headset, Calibration certificate, FLIR Tools™ PC software CD-ROM, Memory card with adaptor, Power supply incl. multiplugs, Printed Getting Started Guide, Printed Important Information Guide, USB cable, User documentation CD-ROM, HDMI cable (2), Warranty extension card or Registration card	



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